

Date: Friday, 08/05/2009 7:33:09 AM
 User: Chantal Lavoie

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : 3"SKIDTUBE LIGHT "I" BEAM EXTRUSION
Job Number : 47814	
Estimate Number : 10306	
P.O. Number :	Part Number : D26005108
This Issue : 08/05/2009 S.O. No. :	Drawing Number : D2600 REV D1
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : SKIDTUBES	Drawing Revision : D1
Previous Run : 38589	Material :
Written By : <u> </u>	Due Date : 09/06/2009 Qty: 240 Um: Each
Checked & Approved By : <u>C 09/05/08</u>	
Comment : Est F 02.09.10 Added DSK 066 KJ/RF	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
----------------	------------------------------	----------------------

1.0

PG

PURCHASING

Comment: Issue P/O: 8815

- a) Extrude as per Dwg D2600
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 40 ksi
- e) Minimum elongation = 8%
- f) Order at 108" long
- g) Caradon Indalex Tool # MS-18871
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

C 09/05/119
 240

2.0

D26005108P

Extrusion "I Beam" thin



Comment: Qty.: 1.0000 Each(s)/Unit Total : 240.0000 Each(s)
 EXTRUSION "I" BEAM THIN

3.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: Receive & Inspect For Transit Damage
 Ensure certification is attached

09/06/10 248

4.0

QC6

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

- 1-Inspect dimensions per Dwg D2600
- 2-Check Pull test per Dwg D2600 for compliance page attached.
- 3-Check hardness with Webster tester

09/06/11 248

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 08/05/2009 7:33:09 AM
User: Chantal Lavoie

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 3"SKIDTUBE LIGHT "I" BEAM EXTRUSION

Job Number: 47814

Part Number: D26005108

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: Back Hall

H

9-6D

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/06/12

Job Completion



MF
09-06-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2600	REV. 0 SHEET 1 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1
A	97.01.21	NEW ISSUE	
B	97.09.09	CHANGE MATERIAL SPEC.	
C	98.04.16	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	
D	98.08.20	INCREASE MIN. UTS TO 40 KSI	
DI	01.04.17	ADD PART NUMBERS + DIE NUMBERS <i>FCP</i>	

RELEASED
18.08.25 DS

GENERAL NOTES

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM YIELD TENSILE STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 40 ksi
MINIMUM ELONGATION = 8 %

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES.

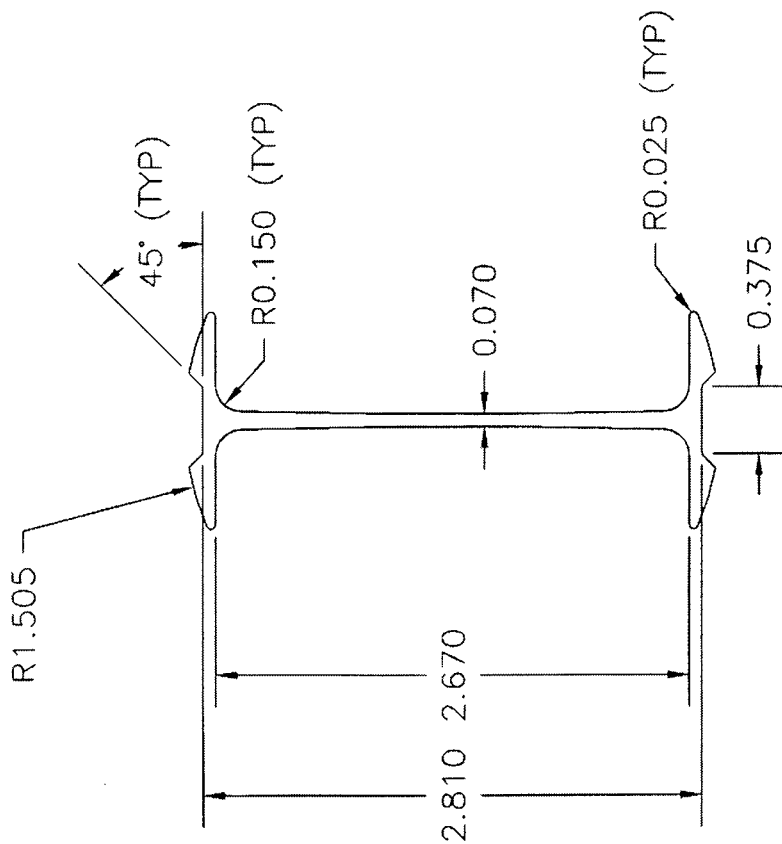
2. BREAK ALL SHARP CORNERS 0.010 MAX.
3. NO TOOLING MARKS.
4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS ARE IN INCHES.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 47814



DESIGN <i>DP</i>	DRAWN BY <i>DP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>CA</i>	DRAWING NO. D2600	REV. D SHEET 4 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

RELEASED
98 8 25 DS



D2600-5
MANUFACTURED WITH CARADON INDALOX DIE # MS-18871
PART NUMBER IS D2600-5-XXX WHERE XXX IS CUT LENGTH IN MMES
(EG. D2600-5-108 IS 108" LONG)

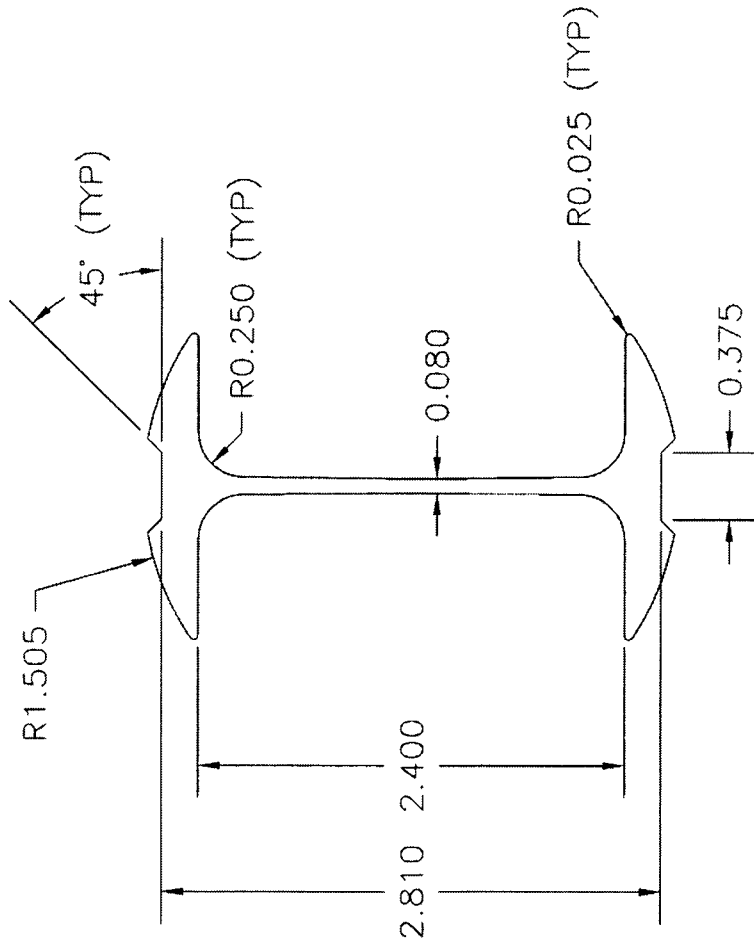


SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 47814



DESIGN <i>PP</i>	DRAWN BY <i>PP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>AS</i>	DRAWING NO. D2600	REV. D SHEET 5 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

RELEASED
98.8.25 DS



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 47814

D2600-7
MANUFACTURED WITH CARADON INDALEX DIE # MS-18872
PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH IN INCHES
(E.G. D2600-7-125 IS 125" LONG)





INDALEX 2000
325, RUE AVENUE
POINTE CLAIR (QUEBEC) H9V 1V9
TEL: 514 882-1111 FAX: 514 882-1112

PRODUITS D'ALUMINIUM - ANODISATION - FABRICATION - PEINTURE -
ALUMINIUM EXTRUSIONS - ANODIZING - FABRICATION - PAINTING

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ONT

MEME - SAME

K6A1K7

CUSTOMER P.S.T.: *6122-5207

INDALEX G.S.T. REG NO: R136834041

PROJ:

Required Date:

NO. DOCUMENT CUST. TNO	REF. G.S.T.	TAXE DE VENTE PROV. PROV. SALES TAX	N° DE COMM. DOCUMENT CUST. ORDER NO.	DATE DE COMMANDE ORDER DATE	RECUEIL DATE DE COMMANDE CUST. ORDER DATE	CORRIGEND TERMS
201355	XXXXXX		8815	9/05/19	9/05/19	
VENDUEUR VENDOR	EXPEDIE PAR SHIP VIA	TAXE TAX	PERC. COT.	C.A.D. T.T.A.N. C.O.D. T.T.O.D.	EN BALLOTS BUNDLED AND TAPED	CARTONNÉ CARTONED
51		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DATE DE LIVRAISON DATE SHIPPED	ENVOYÉ PAR SHIPPED VIA
9/06/09	OUEST 10 JUIN

N° ITEM NO	COMMANDE / ORDERED		N° DE MATRICE INDALEX DIE NO.	DESCRIPTION DU CLIENT CUSTOMER DESCRIPTION	ALLIAGE ET TREMPAGE ALLOY AND TEMPER	LONGUEUR LENGTH	PRIX UNITAIRE UNIT PRICE	CETTE EXPEDITION THIS SHIPMENT					MONTANT AMOUNT
	POIDS WEIGHT	PIECES PIECES						POIDS WEIGHT	PIECES PIECES	BALLOTS BOLLS	POIDS WEIGHT	PCES / PCS.	
1	500	240		F EXTRUDE ONLY DUE=2009/06/12 06-10 MS 18871 D2600-5 D-2600-5 LIGHT DUTY BUNDLE= 878856 878918 878919	6061 T6	2743				3	538	248	POIDS EN KGS
We hereby certify that the material supplied meets the chemical properties as published by the Aluminum Association, and requirements of our Quality procedures													

EXEMPLAIRE DE LA COMPTABILITÉ
ACCOUNTING COPY

FEUILLE D'EMPAQUETAGE
PACKING SLIP



325 rue Avro
Pointe-Claire, QC, Canada
H9R 5W3
Téléphone (514) 697-5120
Fac-simile (514) 694-8310

Rapport des propriétés mécaniques Mechanical Properties Test Report

Client / Customer : **DART AEROSPACE LTD**
Adresse / Address : **1270 ABERDEEN STREET
HAWKESBURY ONT,
K6A 1K7**

commande Indalex / Indalex order # : **9051638**

bon de commande / Purchase order # : **8815**

de matrice / Die # : **MS 18871**

Description : **Light Duty Web**

Alliage & trempage / Alloy & temper : **6061 T6**

Customer Part #: **D2600-5**

Contrôle / Control # : **99357-1**

Coulée / Cast # : **46067**

	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (psi)	38 000	43918
Contrainte élastique Yield stress (psi)	35 000	39473
% élongation dans 2" % elongation in 2"	8	12
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	84

Composition chimique typique / Typical chemical composition :


	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,68 - 0,72	0,15 - 0,27	0,08 - 0,12	0,20 - 0,24	0,48 - 0,52	0,03 Max	0,05 Max	0,03 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	—	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221 excepté pour la section 8.2 (nombre de spécimen) et AMS QQA 200/8 excepté pour la section 4.2.3.1 (nombre de spécimen) qui sont déterminés par les exigences du client.

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221 except for section 8.2 (number of specimen) and AMS QQA 200/8 except for section 4.2.3.1 (number of specimen) which is determined by customer requirement.

Sincèrement vôtre,
Yours truly,

date : **2009-06-09**


Bruno Morency
Technicien de la qualité
Quality technician

Indalex Limited